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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,593	09/15/2003	Shinichi Yasuda	242823US2RD	8075
22850 7590 11/28/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DO, CHAT C	
			ART UNIT 2193	PAPER NUMBER
			NOTIFICATION DATE 11/28/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/661,593	Applicant(s) YASUDA ET AL.	
	Examiner Chat C. Do	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-8,10 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is responsive to Amendment filed 10/22/2007.
2. Claims 1-2, 4-8, and 10-21 are pending in this application. Claims 1 and 11 are independent claims. In Amendment, claims 3 and 9 are cancelled; claim 21 is added; and claims 11-20 are withdrawn from consideration. This Office Action is made final.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 21, it is unclear how the output of first latch circuit is independent of the frequency of the random signal as seen in Figure 8 since the clocking of the first latch is depending on the random signal. For examination purposes, the examiner considers the first random number signal is dependent of the frequency of the random signal.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 7-8, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Chevalier (U.S. 3,866,029).

Re claim 1, Chevalier discloses in Figure 1 a random number generator (e.g. Figure 1 wherein the output of component 30 is the random number) comprising: a counter circuit (e.g. component 20 in Figure 1) configured to be supplied with a clock signal and a random signal (e.g. output of clock input 34 and random bits 11 respectively in Figure 1) having a property in which a power spectrum intensity of the random signal decrease with increasing frequency (e.g. inherent property of random signal wherein as increasing frequency of random signal, the power spectrum intensity of the random signal must decrease proportionally respect to the frequency of the random signal, and Figure 1 with component 11 as random bits generator adjustment), and to provide a count value of the clock signal with respect to a transition of the random signal (e.g. output of component 20 as  $C_i$  in Figure 2); and a first latch circuit (e.g. component 21 in Figure 1 as latch component) configured to latch the count value with respect to the transition of the random signal, and to output a first random number signal (e.g. output of component 30 as random number in Figure 1), and a source configured to provide the random signal (e.g. by component 27 in Figure 1).

Re claim 2, Chevalier further discloses in Figure 1 source comprises an oscillation circuit including a RC delay circuit (e.g. wherein the control multiplier can consider as delay circuit).

Re claim 7, Chevalier further discloses in Figure 1 a pulse counter is accessible by the clock enable input, and the output of the pulse counter becomes the random signal (e.g. Figure 1 with clock input 34 and random bits 11).

Re claim 8, Chevalier further discloses in Figure 1 an inverter connected between the clock enable input side and a clock input side of the first latch circuit (e.g. load/enb in Figure 1).

Re claim 21, Chevalier further discloses in Figure 1 the first latch circuit is configured to output the first random number signal (e.g. output of latch 21 in Figure 1), wherein the first random number signal is independent of the frequency of the random signal (e.g. load/enb control from the random bits generator in Figure 1).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being obvious over Chevalier (U.S. 3,866,029) in view of Kent (U.S. 5,222,142).

Re claim 4, Chevalier fails to disclose in Figure 1 a second latch circuit configured to receive a random number acquisition clock signal having a constant period and the first random number signal, to latch the first random number signal with respect to a transition of the random number acquisition clock signal, and to provide a second

random number signal. However, Kent discloses in Figure 5 a second latch circuit (e.g. component 48/16 in Figure 5) configured to receive a random number acquisition clock signal having a constant period (e.g. clock signal) and the first random number signal (e.g. output of 46 in Figure 5), to latch the first random number signal with respect to a transition of the random number acquisition clock signal, and to provide a second random number signal (e.g. output of component 48/16 in Figure 5). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add a second latch circuit configured to receive a random number acquisition clock signal having a constant period and the first random number signal, to latch the first random number signal with respect to a transition of the random number acquisition clock signal, and to provide a second random number signal as seen in Kent's Figure 5 into Chevalier's invention because it would enable to improve the randomized number (e.g. col. 2 lines 37-52),

Re claim 5, Chevalier further discloses in Figure 1 the frequency of the random number acquisition clock is lower than the frequency of the random signal (e.g. Figure 1).

Re claim 6, Chevalier in view of Kent fail to disclose in Figure 1 the transition of the random number acquisition clock signal represents a leading edge of the random number acquisition clock signal when the random number acquisition clock signal changes from a low level to a high level. However, the examiner takes an Office notice that the transition occurs at the raising level by clock signal is well known in the art of technology. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add the transition of the random number

acquisition clock signal represents a leading edge of the random number acquisition clock signal when the random number acquisition clock signal changes from a low level to a high level into Chevalier in view of Kent's latch because it would enable to capture/output the signal at the moment the clock goes high.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being obvious over Chevalier (U.S. 3,866,029).

Re claim 10, Chevalier fails to disclose in Figure 1 the first latch circuit is a D type flip-flop. However, D type flip-flop is well known and widely used in the technology of art as the examiner takes an Office notice. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add the first latch circuit is a D type flip-flop into Chevalier's latch because it would enable to capture/output the signal at the moment the clock goes high.

#### ***Response to Amendment***

9. The amendment filed 10/22/2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Re claim 2, the newly added limitation "source comprises...RC delay circuit" is not found in the original disclosure.

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Re claim 21, the newly added limitation “wherein the first random number signal is independent of the frequency of the random signal” is not found in the original disclosure.

Applicant is required to cancel the new matter or clearly provide the support in the original specification in the reply to this Office Action.

### ***Response to Arguments***

10. Applicant's arguments filed 10/22/2007 have been fully considered but they are not persuasive.

a. The applicant argues in pages 8-9 for claim 1 rejected under 35 U.S.C. 102(b) that the cited reference by Chevalier fails to disclose the random signal having a property in which a power spectrum intensity of the random signal decrease with increasing frequency as cited in the claimed invention.

The examiner respectfully submits that this feature is a property of the source random signal. As the examiner has addressed clearly in the rejection, this property inherently exists in the random signal wherein if the frequency of random signal increases, the spectrum of the random signal **MUST** decreases due low frequency of randomness in the random signal.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
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